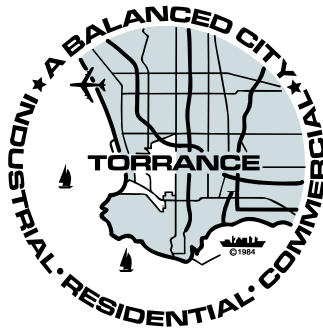


CITY OF TORRANCE, CALIFORNIA

PUBLIC WORKS DEPARTMENT



**SCOPE OF WORK
FOR
PACIFIC COAST HIGHWAY
AT
HAWTHORNE BOULEVARD
INTERSECTION IMPROVEMENTS**

MEASURE R PROJECT F-51

RFP No. 2012-09

April 4, 2012

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1. INTRODUCTION

The City has prepared a Scope of Work, included herein, for the design of the Pacific Coast Highway at Hawthorne Boulevard Intersection Improvements.

2. PROJECT BACKGROUND

The City of Torrance is situated on the western side of Los Angeles County. It is bordered by the Palos Verdes Peninsula on the south, the City of Gardena on the north, the City of Redondo Beach on the north and west boundaries, the City of Lomita on the east and the Pacific Ocean on the west. The City encompasses an area of approximately 21 square miles and has an estimated population of approximately 149,111, which makes it the sixth largest city in Los Angeles County.

Pacific Coast Highway and Hawthorne Boulevard, State Routes SR-1 and SR-107 respectively, are important highways in the City of Torrance linking numerous South Bay communities. They serve both commuters and local residents. At their intersection, each is a 6-lane roadway with raised center medians; all three (3) lanes in each direction are used as travel lanes at all times. Hawthorne northbound at the intersection also includes two (2) left turn lanes; southbound consists of two (2) left turn lanes and a right turn lane separated by a traffic signal island. Pacific Coast Highway both eastbound and westbound includes one (1) left turn lane in addition to their three (3) through lanes. The immediate vicinity of this intersection consists mostly of commercial development, and within less than a square mile of this intersection are eight (8) schools and the Torrance Municipal Airport.

3. PROJECT DESCRIPTION

The purpose of this project is to enhance the intersection of Pacific Coast Highway and Hawthorne Boulevard, which will also provide operational relief along these routes and to the I-405 Freeway.

The project is intended to widen and upgrade the intersection via the acquisition of right-of-way, construction of dedicated right and left-hand turn pockets, restriping, and resignalization. Utility relocation will be required. Limits of this project are 500 feet on all directions from the intersection of Pacific Coast Highway and Hawthorne Boulevard.

4. PROJECT BUDGET

This project is an eligible Measure R Highway Program signals/intersection and street widening project on an arterial with a nexus and benefit to the I-405 freeway. The total project budget for design, right-of-way acquisition, construction and inspection is \$19 million.

5. IMPORTANT DATES

Selection of Consultant

July 2012

6. CONSULTANT QUALIFICATIONS

Desired Consultants for this project shall be California Register Professional Engineers (Civil) with a minimum of 10 year experience in design and management of public work projects. Consultants shall be experienced in roadway and traffic design; right-of-way acquisition; and shall be able to coordinate this project and secure necessary permits, on behalf of the City, with other agencies, including but not limited to the State (Caltrans), Los Angeles County, surrounding Cities, and utility companies.

7. SELECTION CRITERIA

The City will conduct a two-part selection process.

PART I – EVALUATION OF PROPOSALS: After the public opening of submitted proposals for this project, the City will form a committee to evaluate proposals and develop a short list of qualified Firms. The Firms on this short list will then be invited to interview with the City.

PART 2 – INTERVIEW: At the time of the interview, invited Firms shall submit a detailed fee estimate. The fee estimate shall be submitted in a sealed envelope, and should provide a schedule of the Firm's fees, and a cost for each task of the project using the format shown in Exhibit B. Firms may list any additional services and associated costs that are not covered in the City's scope of work. These items should be listed separately from those specifically requested so they may be considered. ***Only after the selection of Firm has been made will the fee proposal from the selected Firm be opened.***

The City will select a Consultant in accordance with criteria listed below.

CRITERIA	MAXIMUM POINTS
Understanding of project, scope of work and completeness of RFP	20
Firm's qualifications and experience with similar work, and financial responsibility	10
Firm's qualifications and experience with right-of-way needs, acquisition, and sale of surplus property	10
Firm's qualifications and experience in successful dealings with Caltrans' Permit Office	10
Qualifications of proposed project team members (meets minimum requirements and amount of desired qualifications)	20
Relevant projects of firm and proposed project team members	10
References	10
Time schedule (will provide final plans and specifications within the scheduled time frame)	10
Maximum Total Score =	100

8. SCOPE OF WORK

The following scope of work is organized into the following tasks:

- TASK I – Project Commencement
- TASK II – Preliminary Design
- TASK III – Contract Deliverables
- TASK IV – Right-of-Way
- TASK V – Project Coordination

TASK I – PROJECT COMMENCEMENT

A. Project Kick-Off Meeting

A pre-design meeting shall be scheduled with the Consultant and the City at the commencement of the project. Consultant shall prepare the meeting agenda to discuss the project requirements, scope of work, schedule, and lines of communication between the City, Consultant, and other agencies involved in the project. Consultant shall prepare and distribute meeting minutes, including all action items.

B. Research & Review Available Data

The Consultant shall research, obtain and review all available data as a reference to prepare the preliminary and final PS&E. Data shall include, but is not limited to: State, County, City, utility and other records/documents; existing street, signal, storm drain, gas, sewer and water main improvement plans; topographic data maps; record drawings; wet and dry utility plans (to determine size and location); geotechnical reports; survey centerline and private property monument data; and other pertinent information. Consultant shall prepare a table summarizing the obtained data and submit a copy to the City and utility agencies. Consultant shall review this information with the City prior to beginning any surveys and preliminary design.

C. Site Evaluation

The Consultant shall perform a field inspection of the Pacific Coast Highway and Hawthorne Boulevard intersection, all approach legs to this location, and all intersecting streets that may be impacted by this project. Consultant shall verify all record drawings and other data related to this project; identify constraints that may influence proposed design and/or impact construction; and identify all necessary improvements (i.e. road pavement needing either localized repair/reconstruction or overlay; curb and gutter, cross-gutters, sidewalk/curb ramps and driveways needing either to be replaced or constructed). Consultant shall create a photo log and map of key project areas.

Consultant may schedule a City representative to be present during the site evaluation(s) and/or inspection(s).

TASK II – PRELIMINARY DESIGN

A. Topographic/Design Survey

The Consultant or its Subcontractor shall perform a topographic survey to include all features that will influence the project design. The survey shall be in conformance with the State Land Surveyors Act and be performed under the direct supervision of a CA Registered Land Surveyor. Consultant shall use California State Plane Coordinate System, NAD83, Zone V, US Survey Feet.

Tasks shall include the following:

- 1) Establish horizontal and vertical survey and construction control for the complete length of the project.
- 2) Perform topographic survey, as required, and may include, but not be limited to:
 - Cross section elevations taken at 25-ft intervals. The sections will follow this format: all property lines (including private properties affected by this project and right-of-way, back of walk, top of curb, flow line, edge of gutter/pavement, grade breaks and/or quarter points, pavement delineation and legends (striping, STOP bars, etc.), and finish surface at the centerline.
 - Locate all existing improvements within the street right-of-way (i.e. above ground utilities, manholes, valve covers, utility vaults and covers, signs, trees, utility poles, traffic signal poles, cross gutters, local depressions, bus pads, catch basins, driveway openings, sidewalks, corner access ramps, parkway drains, etc).
 - Reduce data to a form showing centerline stationing, offset from centerline, and elevation.
 - Provide 0.5 ft contours.
 - Approximately 3 centerline monuments are within the construction area. Consultant shall tie out all centerline monuments prior to construction and identify them in the design survey.
 - Identify in the survey any other monuments, including those on tops of curbs, sidewalk or in the parkway.
- 3) Consultant shall sign, date and submit all original survey notes to the City within 15 working days after the completion of the survey.
- 4) Consultant shall provide traffic control, as required, during all survey operations. Lane closures shall be in accordance with the City of Torrance Standards, available on the City's website at <http://www.torranceca.gov/13023.htm>, and the California MUTCD 2012 Edition.

B. Utility Research & Notification

The Consultant shall research and obtain available existing utility records within the project limits; notify all utility agencies impacted by this project; and compile a Utility Notification and Response Log in a table format to include utility agency's name, dates of

notification, persons notified, and responses received from utility agency. Copies of this information shall be provided to the City.

Notifications shall include:

- Initial Utility Information Request, and all follow-up notifications for subsequent plan submittals
- Prepare to Relocate Notice (if applicable)
- Notice to Relocate (if applicable)

Utilities to be notified will include, but are not limited to: Southern California Edison, AT&T, Verizon, GTE, Southern California Gas, Time Warner Cable, petroleum companies, Water, Sewer and Storm Drain agencies.

C. Utility Potholing

The Consultant shall provide an allowance, not to exceed \$25,000, for utility potholing. Locations shall be based on information received from utility investigations. Consultant shall arrange for utilities to be marked prior to the topographical survey. Pothole locations and depths shall be marked on the pavement surface and shall show both horizontal location and depth from surface to the utility. Compensation will be based on actual cost plus 7% markup, but may not exceed \$25,000. From the utility research and utility potholing, Consultant shall compile and incorporate utility information on the roadway base sheets. Conflicts with existing utilities shall be identified for resolution with the conflicting utility. *(Note: This item may be deleted by the City if it is determined not needed for construction).*

D. Utility Coordination

The Consultant shall coordinate with the utility agencies throughout the design phase and obtain utility “sign-offs”. If the proposed improvements interfere with existing utilities, Consultant shall arrange for potholing by the utility. Otherwise, any needed potholing will be performed under the potholing allowance provided in this scope. If required, Consultant shall obtain necessary permits that are required for construction of the project, from any agency or utility company.

E. Base Sheets

The Consultant shall prepare base sheets utilizing the topographic/design survey, utility research data, and existing street, storm drain, sewer and water main improvement plans. The base sheets will be utilized for the design of the intersection improvements including roadway widening, pavement rehabilitation, signing and striping, traffic signals, and traffic control and phasing. The base plans shall be prepared at a 1”=40’ scale.

Consultant shall data process all topography in AutoCAD Version 2011 or latest edition. Linestyles will be conventional. Text annotation will be stored in layers separate from the graphic elements. An AutoCAD file containing layering, linestyles and color specification will be provided by the Consultant to the Client, if requested. Locations of any property lines, centerlines or rights of ways shown on the topography shall be shown graphically from specified Datum.

The topographic file shall include the basis of horizontal and vertical control, north arrow, date of survey, Survey Crew Chief and supervising Licensed Land Surveyor review and sign off, notes and details.

F. Traffic Index Calculations

If the City determines a need, the Consultant will be directed to perform 48-hour classification traffic counts for two (2) locations: (1) on Hawthorne Blvd and (1) on Pacific Coast Hwy. Only Tuesday/Wednesday or Wednesday/Thursday counts are permitted. Consultant shall calculate two (2) traffic indexes (TI) for each location, each based on a 20-year growth. Consultant shall use both the LA County and State of California methods to calculate a TI.

G. Pavement Evaluation Review/Design

The Consultant shall provide a pavement evaluation/analysis report. Consultant shall review the report and discuss the recommended pavement rehabilitation alternatives with the City.

Tasks shall include the following:

- Obtain pavement analysis through geotechnical boring and testing.
- Assess data and evaluating methods for rehabilitation.
- Prepare value engineering spreadsheets with cost breakdowns for 3 alternatives, including comparisons based on projected life of AC pavement and for PCC.
- Present and discuss recommendations with City.
- After concurrence by the City, the final limits of removal will be shown on the plans.

TASK III – CONTRACT DELIVERABLES

A. 30%, 60% & 90% Plan Submittals

The Consultant shall prepare and submit plans to the City and utility agencies at the completion of 30%, 60% and 90% design stage. Plans shall be on 24" x 36" black lined bond paper sheets, unless otherwise required for utility agencies. Consultant shall submit two (2) printed sets of plans and a PDF copy to the City for each submittal.

All plan types shall conform to the City of Torrance format, the latest applicable design/drafting standards, and shall incorporate the City of Torrance Public Works Title block on each plan sheet.

The following is a listing of plan sheets with corresponding scale to be used, as determined by the City.

PLAN	SCALE
Title Sheet	Varies
Construction Notes and Details	1" = 10', Varies

Typical Cross Sections	Varies
Roadway Rehabilitation Plan and Profile	1" = 40' H; 1" = 4' V
Intersection Grid Details	1" = 10' H Grids at Lane Lines
Sign and Pavement Delineation Plans	1" = 40' H
Traffic Signal Modification Plans	Varies
Traffic Control & Staging Plans	1" = 40' H

Title Sheet shall include project title, vicinity map, general notes, benchmark with basis of coordinates, dig alert information, list of utility companies with contact name and telephone number, list of standard plans grouped by agency (i.e. APWA, City of Torrance, etc), and legend of symbols.

Construction Notes and Details shall include a construction note index, and construction details. Multiple sheets may be required.

Typical Cross Sections shall show right-of-way lines, adjacent private properties (including all structures) affected by proposed design, dimensions between curbs, existing pavement surface and curb/gutter, existing roadbed, proposed improvements and grading/crossfall slope. Pavement cross falls should be kept at 2% optimal; however, cross falls may vary from 1% to 5% as needed for grade and to minimize reconstruction. Construction notes related to proposed improvements shall be included on this sheet. Cross sections will be discussed with the City at the 30% and 60% submittal to identify potential problems.

Roadway Widening and Rehabilitation Plan & Profile shall show all existing conditions, as shown on the base sheets and all existing underground utilities (sewer; water; power; communication; gas mains and associated laterals; storm drains; catch basins and laterals, manhole and valve covers, meter boxes etc). Proposed improvement work shall indicate limits of roadway widening, including removals and replacements; limits of AC pavement cold planing, overlay and/or rehabilitation areas; adjustment of manholes, vaults and valves to grade. Plans also shall indicate removal/replacement of curbs, gutters, sidewalks, access ramps, driveways, bus pads, cross gutters, parkway/curb drains and protection of existing facilities. Consultant shall consider and determine the need and location for the preservation of existing control monumentation and the placement of new control monumentation. At a minimum, each sheet shall contain a north arrow, scale, match lines with station and sheet reference, plan and profile construction notes for all improvements on the sheet. Profile shall show existing and proposed tops of curb elevations with corresponding station and slope of curb between each grade break. For corner access ramps, provide station and elevation at BCR and ECR and label as "join existing." Elevations also should be provided at quarter points. Dimension the distance between each quarter point and the length of the curve.

Intersection Grid Details shall be prepared for the Pacific Coast Hwy and Hawthorne Blvd intersection. Grids shall be shown at 10-foot spacing and show existing and proposed elevations. These plans are primarily for control during paving operations and should show all existing improvements, underground utilities and surface culture on a

larger scale. In order to avoid erroneous data, curb/gutter, sidewalk and improvements from other plan sheets should not be duplicated on these sheets.

Sign and Pavement Delineation Plans shall be prepared for PCH, Hawthorne Blvd, and all intersecting street within the project limits. The plans shall be prepared in accordance to the City standards and design criteria, the California MUTCD 2012 Edition, and the Caltrans Standard Plans and Specifications (latest edition). Plans shall provide for at least 200 feet of transition for each leg of the intersecting streets. The plan layout shall be segmented to minimize the number of plan sheets.

Plans shall show: all existing signs within the project limits, including those mounted on traffic signals, street light and utility poles; proposed signs; and proposed pavement delineation and pavement legends/arrows within the project limits. Centerline stationing shall be shown on the plans.

Traffic Control & Staging Plans for Pacific Coast Hwy, Hawthorne Blvd and intersecting side streets should be designed in accordance with California MUTCD 2012 Edition and the City's Traffic Control Standard Plans available on the City's website at <http://www.torranceca.gov/13023.htm>.

Note: Prior to beginning work on these plans, Consultant shall meet with the City to discuss and determine construction staging, minimum lane requirements, side-street and driveway access, and plan notes and legends. It is anticipated that the project will be constructed in stages and each stage will require traffic control plans.

Construction of this project will require traffic control on Pacific Coast Highway, an east-west state highway. Separate traffic control plans sheet(s) will be required for the Caltrans Standard Encroachment permit application. Plans shall show the closure of each westbound left-turn lane and east bound right turn lane, and any traffic control to safely delineate eastbound and westbound traffic through the turn lanes into the construction zone. These plan sheet(s) shall be prepared in the format required by Caltrans and shall include a signature line for Caltrans District 7 and the project permit number.

Private Properties & Building Plans shall show demolition and construction work related to the complete redesign of private properties acquired for project right-of-way. Plans shall be prepared in accordance with the latest State and City building codes and requirements.

B. Traffic Signal Modifications

The Consultant shall provide design services for the modification of traffic signals at the Pacific Coast Highway and Hawthorne Boulevard intersection. This is a separate, stand alone item. Consequently, in addition to design services, fees associated with this task shall also include the preparation of traffic signal plans, separate from the aforementioned plan submittals.

Traffic signal modification plans shall reference City record drawings (Consultant shall obtain from Community Development Department and Caltrans). Consultant shall be responsible for verifying in the field all existing conditions (i.e. traffic signal poles,

hardware, mast arm and pole-mounted signage, interconnect cable and control equipment).

Consultant shall prepare traffic signal modification plans to included the conversion from loop detection to video detection (either Econolite or Iiteris); replacement of illuminated street name signs; upgrade of signal poles; upgrade of traffic signal equipment; and changes to pedestrian countdown displays. These plans shall show a conductor schedule, interconnect details, pole schedule, phase diagram with detection speed, legend and notes and pole placement details for new poles.

C. Parkway Landscape Design

As an option, the City may decide to upgrade the parkway landscape and irrigation. Consequently, the Consultant shall include an allowance, not to exceed \$35,000, for these services. The exact scope of work and fee will be determined at such time services are deemed a necessary addition to the contract.

D. Quantity Calculations & Cost Estimate

The Consultant shall submit preliminary quantities and construction cost estimate at the 60% and 90% submittals. Unit prices will be based upon the most current cost information for a recent, similar project. The final quantity/cost estimate will be based on the final construction plans and submitted with the 100% submittal. Cost estimates shall include a 5% contingency.

The Consultant shall compare its estimated construction costs for the 60% and 90% submittal to the total project budget for design and construction. If the Consultant's estimated costs exceed the budget, the Consultant shall inform the City and provide recommendations for costs reduction.

E. Project Specifications

The Consultant shall prepare the project specification using the City's standard "boiler plate" specifications (Word 2007) and prepare the Special Provisions portion of the Construction Specifications and Contract Documents suitable for bidding and awarding of the Contract. These special provisions will be incorporated into the City's standard construction document package. Consultant shall prepare the Bid schedule.

F. 100% PS&E Submittal

The 100% submittal shall include an electronic and two (2) complete hardcopy sets of: all plans, specifications/special provisions and quantities/cost estimate for final review. Minimal corrections may not be needed, but should be expected. Plans shall be on 24" x 36" black lined bond paper sheets.

G. Final Submittal

Upon City approval of the 100% plans/specification submittal, Consultant shall submit a complete set of stamped/signed (CA Registered Civil Engineer) original plans on mylar, an unbound set of stamped/signed specifications/special provisions, and a quantities/cost estimate. The Consultant shall also submit an electronic copy of all final AutoCAD drawings (with x-refs and plot configuration files), specifications/special provisions, and quantities/cost estimate on a CD-ROM.

TASK IV – RIGHT-OF-WAY

The Consultant shall provide for all right-of-way services necessary to complete the construction of this project, including but not limited to, property acquisitions and dispositions, business relocations, and legal advisement and representation. The Consultant shall identify proposed right-of-way impacts to all properties affected by this project, and provide to the City a scope of work and schedule for all right-of-way acquisitions. Tasks shall also include appraisal of property, survey and recording, environmental assessment, sale of surplus property, and identifying all financial impacts to existing business, including valuation and relocation expenses.

TASK V – PROJECT COORDINATION

The Consultant shall perform all project management services during the course of the project, as required, to complete its contract work (i.e. General Project Coordination, Preparation of Schedule, Quality Control, Progress Reporting, and Subconsultant Management).

A. Meetings

To ensure understanding of the contract objectives and facilitate coordination within the team, meetings between the City and Consultant shall be held as follows: for the 60% and 90% submittals; one (1) meeting prior to commencing the preparation of traffic control and staging; and one (1) additional meeting, as requested, for a total of four (4) meetings. Consultant shall have no more than 2 attendees per meeting. Project objectives, schedules and any other issues will be discussed and resolved and/or assigned for follow-up.

At the 60% and 90% meetings, Consultant shall bring one (1) copy of any completed plans, specifications, estimate and an updated project schedule for submittal.

B. Permits

Caltrans: Following the City's meeting on Traffic Control & Staging Plans, Consultant shall prepare, on behalf of the City, a Standard Encroachment permit application with applicable plans for submittal to Caltrans District 7, 100 South Main St., Suite 100, Los Angeles, CA for review and approval. The City should be exempt from a permit application fee. The Consultant should include fees to prepare a PEER report, fact sheet and/or any other documentation necessary for approval of the encroachment permit(s) for work on this project.

Building Permits: Contractor shall obtain all necessary permits for the demolition and construction of all structures associated with this project.

C. Final Survey

This task is intended to budget for reimbursable expenses that are associated with final survey prior to construction.

Tasks shall including the following:

- Tie out all property lines before recording

- Tie out centerline monuments and any impacted centerline ties; and prepare and file Corner Records with the County of Los Angeles and City of Torrance. There are approximately 3 centerline monuments are within the construction area.

D. Reimbursable Expense

This task is intended to budget for reimbursable expenses that are associated only with reprographics of plans and paper documents, and postage when making submittals to the City and other agencies or utility companies. Costs to print documents, produce reprographics, and postage for consultant's internal review and/or coordination with satellite offices or sub-consultants should be included in the fees for the various tasks.

E. Bid & Construction Support

As an option, the City may decide to retain the Consultant at the end of the project design for bid and construction support. Consequently, the Consultant shall include a proposed scope of work and associated fees for this optional task.

EXHIBIT A

PROJECT SITE PLAN

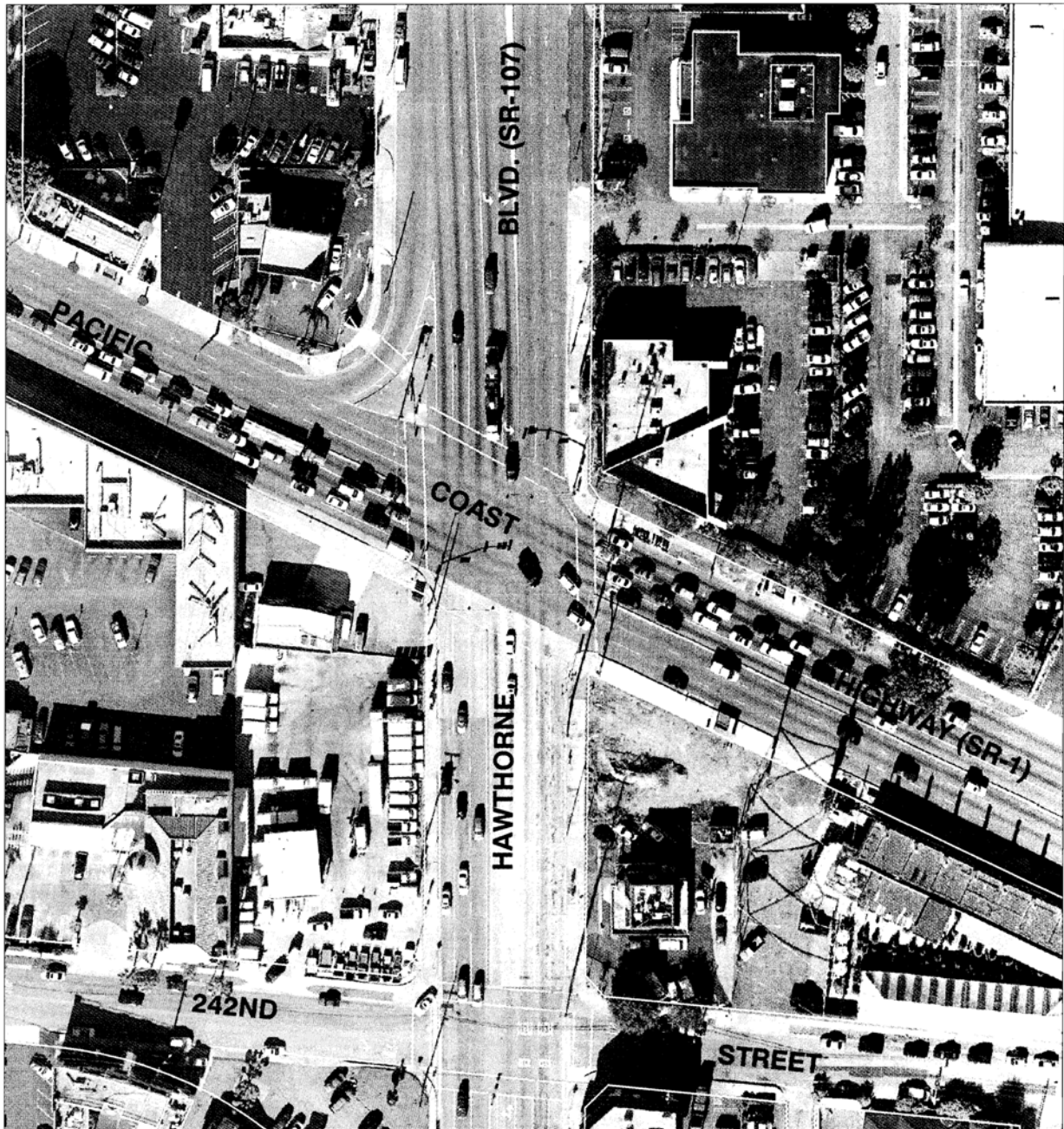


EXHIBIT B

SCHEDULE OF FEE ESTIMATE (SAMPLE)

TO BE SUBMITTED AT THE TIME OF FIRM'S INTERVIEW WITH THE SELECTION COMMITTEE

CONSULTANT'S SERVICES	Project Manager	Engineer	Admin	Consultant	Total
PROJECT COMMENCEMENT					
Project Kick-Off Meeting					
Research & Review Available Data					
Site Evaluation					
<i>SUBTOTAL - Project Commencement</i>					
PRELIMINARY DESIGN					
Topographic/Design Survey					
Utility Research & Notification					
Utility Potholing					\$25,000
Utility Coordination					
Base Sheets					
Traffic Index Calculations					
Pavement Evaluation Review/Design					
<i>Subtotal - Preliminary Design</i>					
CONTRACT DELIVERABLES					
30%, 60% & 90% Plan Submittals					
Traffic Signal Modifications					
Parkway Landscape Design					\$35,000
Quantity Calculations & Cost Estimate					
Project Specifications					
100% PS&E Submittal					
Final Submittal					
<i>Subtotal - Contract Deliverables</i>					
RIGHT-OF-WAY					
PROJECT COORDINATION					
Meetings					
Permits					
Final Survey					
Reimbursable Expenses					
Bid & Construction Support					
<i>Subtotal - Project Coordination</i>					
TOTAL FEE =					